

An
Inaugural Oration
on the
Medical Effects
of
Liquor and Bark
by
Thomas Fuller Jr
of
Beaufort Carolina —

the
Chapman & Co
in the
House of
of
Left and Right
of
Thomas J. Smith
of
Chapman & Co

Such, naturally, as the Dispositions of Illness
that in our constant anxiety ^{and desire} for things, novel but
comparatively unimportant, the greatest and most
inestimable of amusements, because recurring
daily, are passed over and forgotten - Forgetting as we
tend to all Comfort and Happiness and become
commonly and constantly contented with the value
of the Gift is not estimated nor the accomplishment
of the Donor properly acknowledged -

In attempts to account for the various Phenomena
- of nature, it is not less amusing than
surprising to observe how frequently the more
apparent Causes are skipped over and hurried
sarcasms remarked for arguments to make proba-
- ble some favourite theory -

In like manner, in Medicine, who can but
admire the Ingenuity of the numerous theories
advanced to explain the different Phenomena of
Disease and the modes of treatment accommo-
- dated to each of them. In all, however, it has
appeared to me, that while from every Kingdom
Remedies are derived, very little I may say, no other
- two has been paid to the Medical Effects
of Light and Darkness. From obvious
on which I propose as the subject of the follow-
ing short Essay -

2

I do cast on these many and various effects I will not attempt, because too extensive and be-
- cause unconnected with that view which I pro-
- pose to take of the Subject - No one can feel
it is certain which links in the Light is insensi-
- ble to its effects -

In the Treatment of this Subject, the combina-
- tion of Light as constituting effects of the Ma-
- nifest of Nature, I shall first attempt - The pro-
- perty of this addition to the natural attributes
Dr. Barton mentions in his Lectures on the Ma-
- ture Medical -

That Light is essential to those various
Principles of the Animal Economy constituting
perfect Health may I think be inferred from
the pale and meagre appearances of those
whose constant occupations are in Cellars, fol-
- lowing the Caves, and other Places in proximity
by the Solar Influence - That other Causes
combine in inducing this Effect, I do not
deny, but that the deficiency of Light has a
direct influence and influence, indirectly, the
very Cause - then perfect restoration when again
submitted to its action, incontestably proves -

So considerably says Dr. Dawson that from
the colour of the Skin is influenced by Light, that
he deems it practicable by confinement in the Dark

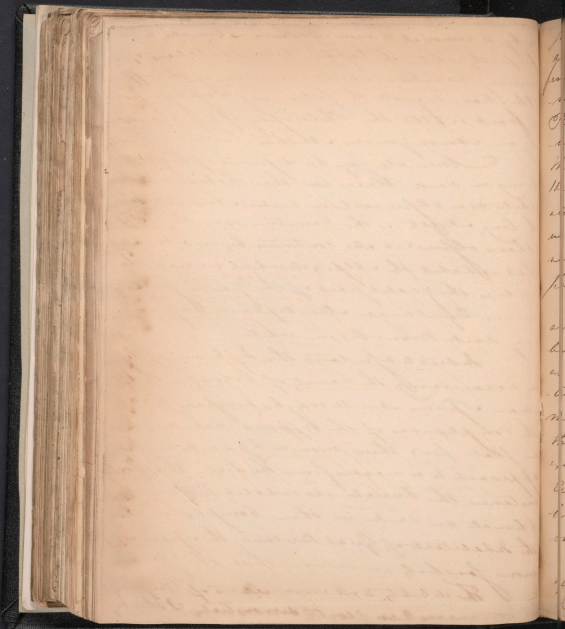
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or by a removal to more northern climates, to render
perfectly white the Copper Coloured Nations of
Sunny Countries. And as evidence of this effect
Shydeau quotes the following Passage from
a work entitled the Philosophy of Education
by an anonymous Author—

Animals, says he, deprived of light or
living in dark places lose their colour and become
white as is often seen in Arctic Animals. During
the long nights in the Countries near the Pole
I have observed it also, continues he, in Animals
that inhabit the Alps and which conceal them-
selves the greater part of the Year in subter-
ranean dwellings. When kept in a Cage in a
very dark Room become white—

Indeed to ascertain the Influence of Light
in occasioning the variety of Colour in the Hu-
man Species, it will only be necessary to compare
the Complexions of the different Countries, and
we shall find them more or less dark as they
approach to or recede from the Line. Thus for
instance the French who inhabit a more southern
Climate are darker in their Complexion than
the Inhabitants of Great Britain. The Spaniards
more southerly are browner than they &c.

The debility and emaciation of Persons
Literaneously employed demonstrably I think,



fact, factually the effect of its absence on the
general Health - The partial and sometimes
partial deprivation of this indispensable Nature
in Dungeons, Cells and other gloomy
Places of confinement, with the dampness, was
void all in consequence of its exclusion explain
the Cause of the very great injury done to the
Health of the Prisoners, Shipwrecked and
also the reason why the meaner sorts of Houses
in Great Britain darkened on account of the
very heavy Windows Tax exhibit a race of feeble
and unhealthy Inhabitants -

Upon a Subject interesting like this
a very surprising few Experiments have
been made to ascertain the effects of Light
as they respect the absolute necessity of the addition
of this statement to every other for the
maintenance of firm Health, and as between
the Animal and Vegetable Kingdoms there
exists an analogy strikingly great a few
Examples of its effects on the former will, I hope
be admitted as demonstrating its very essential
importance to the former -

That Light is requisite to the Vegetation
of Plants is acknowledged, I believe by all
Botanists and certainly proved by three very

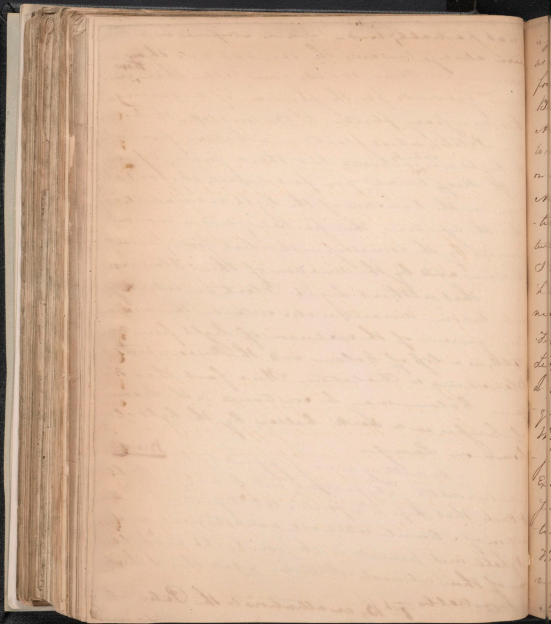
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great partially bent - Plants confined in a Room
turn always towards the Window and those
growing in dense woods grow taller than ^{those}
open grounds, for the purpose of acquiring
this necessary fluid - I. Bartow makes the interior
of a Potatoe, which planted in a cellar from which
the light was ^{entirely} excluded, but thro a small aperture
in the roof twenty five feet distant, shoot out
vine in the direction of the light and made it way
thro the aperture - this partially to it is movment
induced by the compass, which it follows
the sun and by the direction of their flowers -

That without light Plants are coloured
and become diseased is also certain - The inevitable
consequence of the exclusion of light from veg-
etals is a loss of colour and the disease termed
bleaching or etiolation - It is a fact that the
green colour may be continued in the leaves
of Cucumber in a dark cellar by the light of a
common Lamp -

Admitting as was supposed by Dr. Brown
and others that light is "a force" internally applied
I think that light is "a force" internally applied
I shall next proceed to explain light as a condition
one of these external conditions. And this I think
demonstrable 1st By an attention to the Palm, which



is faintest in the morning, increases as the Sun
ascends, the Harrow at twilight is most frequent
for a while remains so and then with thin delicate
Dust to be more curious of the effect inwards on the
actual system by the stimulus of light. I have
to relate the following experiment made by myself
on a young gentleman my intimate & regular
assistant. Before the excitability of his
-tion being greatly increased by an abstinence of
twenty four hours, from every kind of Stimulus
I closed the windows of the Room in which he
had remained during the day, with a temperature
nearly equal. Thus rendering it perfectly dark.
Fifteen minutes after the total exclusion of
Light, I examined his Pulse, which beat with
a fullness not exceeding 70 plus and with a fre-
quency not exceeding fifty three strokes in
the minute - His Spirits suffered an evident de-
-jection. Having several times repeated this
Examination with the same result, I caused
just a tumbler of Brandy to be suddenly in-
-troduced as to occasion a very copious flow.
The instantaneous effect was, 1st. In quietude, a
very ^{copious} discharge of Tears - 2d. Fifteen
minutes after this Illumination I suffered

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The effect on the Pulse, which very far exceeded
my Expectations - from fifty, thus it had arisen
to fifty six strokes in the climate with an
increased degree of fullness - His spirits, he
confessed, were exhilarated - Eight or ten days
afterwards, I renewed my examinations and found
the Pulse increased to fifty eight strokes but
without any additional fullness - Septuagesimo
made several examinations, but observed no
alteration -

② The Influence which light exerts on the
-mal spirits, evinces it Stimulant -

Dr Rust relates the account of a Mr. Stewart
who informed him that he had spent a Summer
in Lapland, during the greatest part of
which the Sun was seldom out of sight - He
enjoyed while there uncommon Pleasure and
Spirits both of which he supposed occasioned
by the long duration of the animating Influence
of Light -

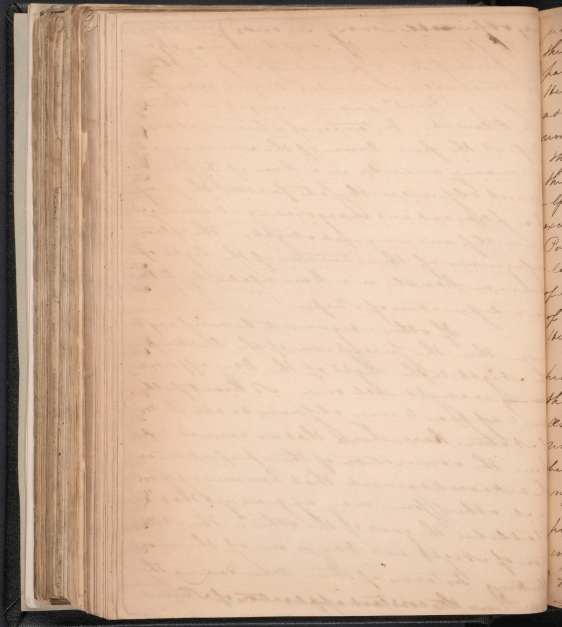
So conspicuous are its effects on Persons
brought by predisposed, that the elevated and
exalted state of their minds are almost in
proportion to the splendor or obscurity of the
Solar Rays and hence we may infer one Cause
why the hysterical affections are generally
less severe during the Summer - This effect is

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very observable among the alids generally -
 The stimulating effects of Light may again
 be inferred from its power to prevent Sleep in persons
 systems elevated above what Dr. Keil calls the "
 Sleeping Point" and inducing it in those who
 used below it. Instances of a termination of
 Sleep at the first Dawn of the morning's Light
 are many and who, in a Case of Typhus Fever
 has not observed with fatal result, the succession
 of a pleasant and invigorating morning Sleep
 to a restless and unquiet night - The cessation
 of the excitement of the Light of a
 common Candle, in a Case related by Dr. Keil
 was a deprivation of Sleep -

If other arguments be necessary to
 prove this - the succession of the Darkening of
 the Night to the Light of the Day, affords not
 an equally unconfutable one - So beautifully, as
 must appear to every observer, do all the works
 of Nature harmonize that we cannot refrain
 from the admiration of their perfection and
 the acknowledgement that however opposite
 each other's form may appear, yet that "each
 is tabular the good of the other" - The alterna-
 tion of Night and Day is one of the most
 striking Instances of this - When during the
 Day from the constant application of stimuli



such as exercise mental and corporeal. Light &c the excitability of the system is increased & as the power of excitement, in order as is requisite for perfect health, to the restoration of this equilibrium - it advances. The stimulus of light being by its removal. The excitability suffers a little elevation. This small elevation exposes to rest and then by the gradual abstraction of stimuli the system is brought up so near to a par with the excitement as to reach what is termed the "Sleeping Point" - During sleep from the very few stimuli acting on the system, a sufficient quantity of excitability is accumulated for the proper action of stimuli the ensuing day - In this manner health is continued.

If then, as I think the above argument shows, Light be a stimulus, is it not surprising that while in the lowest stages of chronic disease, as other opinions, mind and all the most stimulating remedies have been employed - no attention has been paid to the regulation of the Light and Dark -
 naps of Jack Rogers -

As from the want of opportunities any practical observations on this subject are rendered impossible before I have to propose the following

The mind is supported by the doctor to sleep with the body, so its stimuli are also exhausted during sleep

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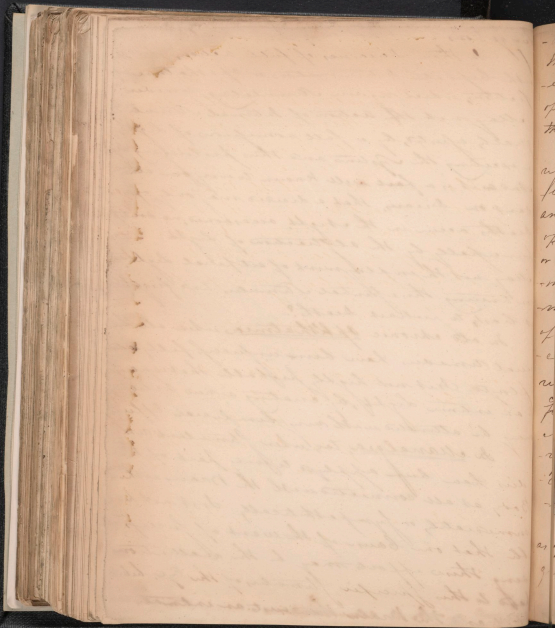
Suggestions

In those Diseases of full action, unattended with cerebral determination or ophthalmic affection, which require Stimulating remedies

May not the action of Internal Stimuli be greatly assisted, by a full admission of light, in exciting the system and thus prolonging life. And as it is a fact well known to every practitioner on disease, that a divided one / only of deaths occur in the night, occasioned, no doubt principally by the abstraction of light - May not the employment of artificial light, by continuing the external stimulus, tend frequently, at least, to protract death?

In old chronic Ophthalmia, when all the usual remedies have been unsuccessfully employed - Is it not highly probable that exposure to an intense light, by creating a new action, may be attended with very beneficial Effects?

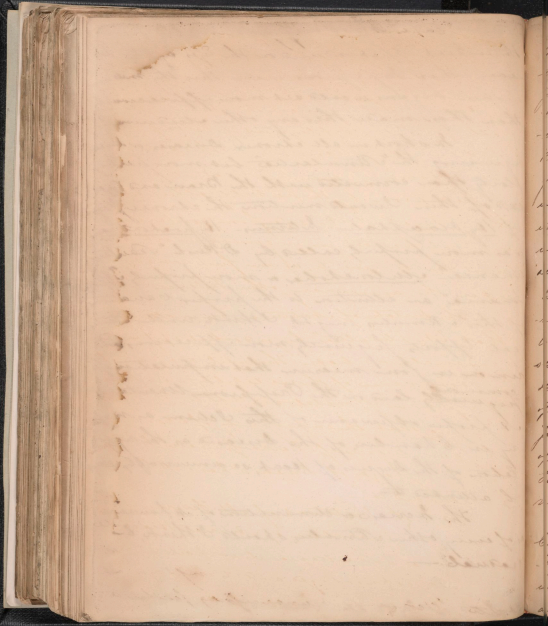
In Manalgia, too, when Stimulants administered have been applied to every part of the Body, as all connected with the Brain within commercially or sympathetically - Is it not probable that one Cause of the want of success attending these efforts, may be the hallucinations of the excessive stimulus of the Eye, between which and the Brain there exists an intimate connection.



from a basis it not very presumable from
the indirect effect induced on the Eyes by this dis-
ease, that Impressions made thro' the medium
of these organs, would act more effectively, by
than they made thro' any other medium?

In short in all chronic Diseases or Disorders
affecting the "Stimulus", but more particu-
larly than connected with the Brain and Eyes,
and of these I would mention the chronic stage
of Hydrocephalus Internus - Hypochondriasis,
or as more properly called by Dr. Keit. "Scurvy
mania" - Melancholia or more properly "Hypo-
mania"; an attention to the proper variations
of this Stimulus might, I think, under Medi-
cal Efforts frequently, more effectively, and
removed in some measures that impulations so
commonly laid on the Impressions - Unquestion-
ably a proper observation of this I deem as neces-
sary in Chambers of the Disease as the regu-
lation of the degree of Heat, so universally strict-
ly attended to -

The Increase or diminution of it however,
as of every other Stimulus, should I think, be
gradual -



Having when speaking of light unassisted, been
 tired off the effects of its influence. I shall not by
 placing other Disorders, unnecessary, protect
 this Idea. To the Physicians the advantages deriv-
 ed from the employment of Barkness as a
 Remedy in acute Diseases, may, I think, be very
 great. Nature appears to indicate its propriety
 in a febrile Room by the partially-obliterated
 existing decided trait. and from constant and
 universal customs, in general resort to it
 almost unconsciously, as our first remedy.

But in this, as in many other Disorders, in ap-
 plying the dictates of Nature we are inattentive
 to that, "In plus ultra" beyond which, of persons
 she invariably misleads. Thus while according to
 the pulsation of the excitability or excitement
 of the system, we stimulate and deplete. In short
 supposing that the propriety of a course
 of this form of Barkness in all the different
 forms and stages of Disease has not been
 more attended to -

As in the Treatment of all Fevers with
 Cephalic Determinations, of Acute Headaches
 of Ophthalmia and other, its importance is
 universally acknowledged and its employment
 adopted. Concerning its necessity further to

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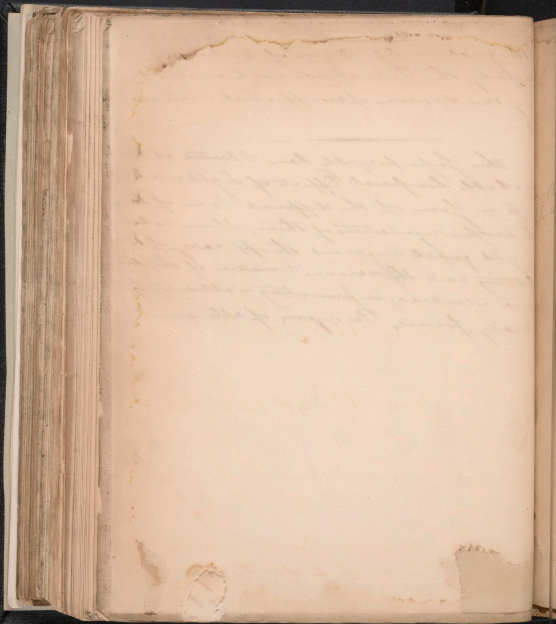
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transit - In Manicula however, an attention
to the greater or less Degree of Darkness, as in-
-duced by the Pulse should not be omitted by
any one desirous of an official treatment of
it -

Thus superficially have I hinted at the
probable beneficial Effects of Light and Dark-
-ness in some of the different Forms of Disease.
The proper regulations of them, I have no doubt
might greatly augment the efficacy of Blood-
-letting and the various remedies of the Ma-
-terial Medicine, in preventing or alleviating the
already formed, Paroxysms of all -



slightly so
1809

An
Inaugural Dissertation

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E. L. Lawton

For
The Degree
of

Doctor of Medicine.

submitted to

to the Examination

of

John M'Dowell, L.L.D. Provost.

The

Trustees and Medical Professors

of the

University of Pennsylvania

by E. L. Lawton

(In
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year 1811

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first of the year

John W. Smith, Esq.

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